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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,243	08/28/2001	Geoffrey B. Rhoads	P0423	6983

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DIGIMARC CORPORATION
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EXAMINER

VU, VIET DUY

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,243

Applicant(s)

RHOADS, GEOFFREY B.

Examiner

Viet Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-74 is/are pending in the application.
- 4a) Of the above claim(s) 32-74 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18 and 22-31 is/are allowed.
- 6) ☒ Claim(s) 7-15 and 19 is/are rejected.
- 7) ☒ Claim(s) 20 and 21 is/are objected to.
- 8) ☒ Claim(s) 32-74 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Restriction:

1. Newly submitted claims 32-74 are directed to inventions that are independent or distinct from the invention originally claimed for the following reasons:

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 7-31, drawn to a method of encoding hyperlink information into a graphical image, classified in class 709, subclass 219, and class 380, subclasses 4 and 28.
- II. Claims 32-41 and 55-68, drawn to method of controlling operation of host computer using data downloaded from a remote server, classified in class 709, subclasses 204 and 217.
- III. Claims 42-54, drawn to method of encoding hyperlink information into an audio signal, classified in class 709, subclass 219 and class 380, subclasses 4 and 28.
- IV. Claims 69-74, drawn to a specific object decoder for decoding embedded hyperlink information, classified in class 709, subclasses 219, and class 380, subclasses 4 and 28.

The inventions are distinct, each from the other because of the following reasons: Inventions I, II and III are related as

subcombinations usable together. Regarding inventions I and III, it is quite clear that the method of encoding audio signal is different than the method of encoding a graphic image. Invention II, on the other hand, has a separate utility such as control operation of host computer by using data downloaded from a remote server.

Inventions I and IV are related as combination and subcombinations. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination I as claimed do not require the particular of the subcombination IV as claimed because conventional image encoder/decoder can be used in the invention I. The subcombination IV has separate utility such as data object for storing different types of data including image and audio data.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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2. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 32-74 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Art Rejection:

3. The text of 35 U.S.C. § 103(a) cited in the previous office action not cited here can be found in the previous office action.

4. Claims 7-15 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tow, U.S. pat. No. 5,315,098, hereafter '098, in view of Tow, European patent application No. 493,091, hereafter '091.

The patent '098 discloses a system and method for embedding digital data onto a printed halftone image comprising:

a) receiving data corresponding to an initial graphic image, the data representing pixels, each having a value (see col 3, lines 25-47),

b) processing the initial graphical image to steganographically encode the halftone image with a received digital input data

thereby hiding the digital data within the image (see col 4, line 48 - col 5, line 31),

c) producing/printing the image on physical medium for distributing to user who can decode the embedded digital data for use with an application, e.g., email (see col 1, lines 52-65).

The patent '098 does not explicitly teach embedding a network address. The patent application '091 teaches embedding onto a printed image many different types of digital binary codes including a hyperlink pointer, i.e. a network address (see col 4, lines 51-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the patent '098 to hide any known digital data in a printed halftone image including a network address. The use of a network address would have enabled the recipient to establish a communication link in the network, e.g., Internet.

Per claim 11, neither references teach accessing a remote data structure to obtain a network address. An official notice is taken that the use of a domain name server (DNS) to resolve network addresses in the Internet is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a conventional

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DNS in Tow because it would have enabled resolving a network address.

Per claim 15, it would have been obvious to one of ordinary skill in the art to embed digital data onto a color image (see '091's col 1, lines 14-25).

Per claim 19, it would have been further obvious to one of ordinary skill in the art to encode the digital data within any specific portion of the image including text or background (see col 4, lines 37-47).

Allowable Subject Matter:

5. Claims 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 16-18 and 22-31 are allowed over prior art of record.

Response to Amendment:

7. Applicant's arguments filed on 11/12/04 with respect to claims 7-15 and 19 have been fully considered but they are not deemed persuasive.

Applicant alleges that the office action mailed 1/28/04 did not address all limitations in the claims.

It is submitted that if applicant found any limitations that were not allegedly addressed or inadequately elaborated, the applicant should point them out in the next correspondence rather than later so that the examiner could have a fair chance to reply. The examiner notes that applicant's remarks filed 11/12/04 now include new arguments that have not been presented before during the prosecution of this case. Particularly, applicant now alleges that Tow ('098) does not teach or suggest "processing data representing pixels, each having a value" because Tow ('098) only teaches processing halftone patterns which are not equivalent to the initial graphic image.

This is not found persuasive. First, the examiner is unable to find the alleged limitation of "processing data representing pixels, each having a value" in the current claims. Second, "processing the initial data image" does not necessarily equate to "processing data representing pixels" as applicant alleged because "processing the initial data image" may include one or

more intervening steps such as transforming the pixel data into halftone patterns and rotating the patterns as disclosed by Tow. Here the initial graphic image is construed as graphic image before any modification and not necessary as a reference to a specific processing stage of the image processing. Applicant is reminded that Tow discloses the invention as claimed, e.g., processing the initial graphic image using the input digital data. The fact that Tow may disclose additional steps, not claimed, e.g., generating halftone patterns, is irrelevant.

Applicant also alleges that Tow's encoding method does not change the value of the represented pixels of an encoded graphic image.

The examiner disagrees. Although Tow does not teach changing value of a pixel per se, Tow's cell rotation process does affect purported values of pixels on a rotated halftone. For example, after the rotation, cell 11 (value 0) now takes place of cell 3 (value 1) (see figs. 3A and 3B). Thus, a decoding process to convert the rotated cell to digital data should yield represented pixel values that are different from that of the initial halftone cell.

Per claim 19, Applicant also alleges that Tow does not teach encoding the digital data in a background of an artwork having text and background.

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The examiner submits that it would have been obvious from Tow's teachings that digital data can be embedded within any specific portion of the image including text or background (see col 4, lines 37-47).

Conclusion:

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Vu whose telephone number is 571-272-3977. The examiner can normally be reached on Monday through Friday from 8:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee, can be reached on 571-272-3964.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.



VIET D. VU
PRIMARY EXAMINER

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12/20/04